

Observations of Coggia's Comet (III. 1874). By John Tebbutt, Esq.

(Communicated in a Letter to the Secretaries.)

The Comet discovered by Coggia, at Marseilles, on the 17th April last, was a conspicuous object here during the first week of the present month, and it is still faintly visible to the naked eye. I have obtained many differential observations with a ring-micro-meter, on my Cooke & Sons Equatoreal, of 4½-inches aperture and 70-inches focal length. Owing, however, to illness and other causes, I have been unable to make the reductions keep pace with the observations. The following observations have been reduced:—

1874. Aug.	Windsor M.T. h m s	Comet—Star.		No. of Comps.	Comp.-Star.
		App. R.A. m s	App. N.P.D. ° ' "		
1	17 15 39	— 0 51.62	— 12 7.1	6	B.A.C. 2699
1	17 44 38	— 0 12.09	+ 0 9.5	10	<i>a</i> = 7 mag.
2	17 23 2	— 1 55.55	+ 1 4.9	4	<i>b</i> = 7 mag.
2	17 28 47	— 0 23.34	— 9 43.3	6	<i>c</i> = 7 mag.

The differences have been corrected for the comet's proper motion, which was very rapid in declination. The only modern observations which I have of B.A.C., 2699 are those made at the Sydney Observatory in 1860 and 1862. The mean and apparent places for 1874.0, and the date of observation respectively, are thus deduced:—

R.A. for 1874.0 from Sydney Obs.	Mean.			Apparent.
	h	m	s	
{ 1860 =	7	58	9.10	
	1862 =	7	58 9.34	
		7	58 9.22	(8.54)

N.P.D. for 1874.0 from Sydney Obs.	Mean.			Apparent.
	°	'	"	
{ 1860 =	122	6	40.4	
	1862 =	122	6 43.7	
		122	6 42.0	(33.8)

The approximate positions of the three other comparison-stars were determined with the Equatoreal as follows:—

	R.A.	h m s	N.P.D.	° ' "
<i>a</i>	=	7 57 30	=	121 58
<i>b</i>	=	7 59 58	=	124 32
<i>c</i>	=	7 58 26	=	124 43

The star *c* appears to have been observed with the mural circle at Washington Observatory in 1849; see Zone 232, No. 9, at page 275 of the Appendix II. to the volume of *Observations* for 1869. The mean place there given for 1850.0 is as follows:—

$$\begin{array}{rcl} \text{R.A.} & = & \begin{array}{c} \text{h} \quad \text{m} \quad \text{s} \\ 7 \quad 57 \quad 26.8 \end{array} \qquad \text{Decl.} = \begin{array}{c} ^{\circ} \quad ' \quad '' \\ -34 \quad 40 \quad 11.0 \end{array} \end{array}$$

The magnitude for the time of the Washington observation is stated to be the 9th. The star is therefore probably variable. Most of the stars compared with the comet have never been observed in the meridian, or their places have been only approximately determined. On the completion of the reductions, the results shall be forwarded.

*Observatory, Windsor, N.S.W.,
1874, August 27.*

Sextant Observations of Coggia's Comet (III. 1874) in South Africa.
By Andrew A. Anderson, Esq.

(Extract from a Letter to the Astronomer Royal.)

I observed a Comet for the first time in the Eastern hemisphere about 15° above the horizon early in the morning. At the time I was in lat. 23° 30' S., long. 28° 54' E.; travelling in my ox-waggon towards this place, and at every opportunity when the clouds would permit, I took observations as to its position in the heavens, and I forward to you a *rough* diagram of the same. The comet appears very bright; the tail is apparently short, but as the moonlight is bright, it lessens its appearance materially. My observations were taken with a pocket sextant, the glasses of which are very dull from damp, and only stars of the first magnitude can be seen well through them, therefore I cannot depend on the accuracy of the minutes, as it is difficult to say when the two objects observed are in conjunction, but in every other respect my diagram is correct. Between July 27 and August 8, the distance of the comet from several of the principal stars was measured. The stars were A = *α Orionis*, B = *Sirius*, C = *ζ Argûs*, D = *γ Argûs*, and E = *Canopus*. The comet's apparent path passed very nearly through *ζ* and *γ Argûs*. The observations are as follow:—

On July 27, 1874, I took observations of the stars A, B, C, D, and E:—

From A to B	15	39
„ B „ C	28	52
„ C „ D	8	27
„ D „ E	17	33
„ E „ C	21	00
„ B „ E	36	26